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"VISCO"

COOLING TOWERS



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"VISCO"

COOLING TOWERS



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COOLING TOWERS

THE functions of water cooling plants need not be enlarged upon; they are well known. Wherever water is deficient in quantity and even in quality, they form a necessary adjunct to modern power plants in connection with steam or gas operated prime-movers, air-compressors, coke-oven plants, and the like.

Cooling Towers are sometimes looked upon as necessary evils; it is nevertheless of importance to give to this end of the power plant as much attention as to boilers and turbines, so that the whole may blend into a homogeneous unit returning the highest efficiency for a minimum capital outlay. Our staff of experts has a longer and more extensive experience in water cooling problems than any other firm in this country, and their advice is gladly placed at the disposal of customers.

The most usual apparatus for cooling water is represented by

THE CHIMNEY COOLING TOWER

which is capable of meeting all ordinary requirements and is normally made entirely of timber. The illustrations on pages 5 and 7 give representative plants supplied by us. Now and then the towers are made of other material, such as steel.





"VISCO" COOLING TOWER IN COURSE OF ERECTION

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concrete or brick, but on the whole, the very considerably increased first cost is not justified by the longer life obtained. The tower itself is of rectangular or polygonal shape and should, of course, be of ample size (this is often sinned against) to pass the mixture of air and vapour resulting from efficient cooling. We have paid special attention to an efficient and accurate water distribution which is effected by venturi nozzles and splash plates; these being made of glazed porcelain are practically indestructible. The cooling bars or hurdles are of remarkable strength, and are rigidly held in position and supported without the use of nails. They cannot warp or sag, and at the same time the design is such that a most intimate mixture of air and water is obtained with a maximum cooling surface and a minimum resistance. Special precautions are taken by suitably arranged wind screens and partitions to ensure that all parts of the cooling stack receive an ample and equal supply of air from the atmosphere. In short, our design combines the qualities required of an up-to-date cooling tower, and represents:

Strength with low capital cost;
Efficiency and reliability.

Where space is valuable, or altogether insufficient for the duty required, we recommend the

"VISCO" SUPER COOLING TOWER

which occupies little more than half the space of a standard cooler, and is particularly suitable for large units. The design is unique, and the efficiency far ahead of any other construction in wood. Although more expensive than the standard cooler, if the cost



"VISCO" CHIMNEY COOLING TOWER AT SOUTH WALES POWER STATION.

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of foundation and space is taken into consideration, a saving in capital outlay can, in most cases, be shown.

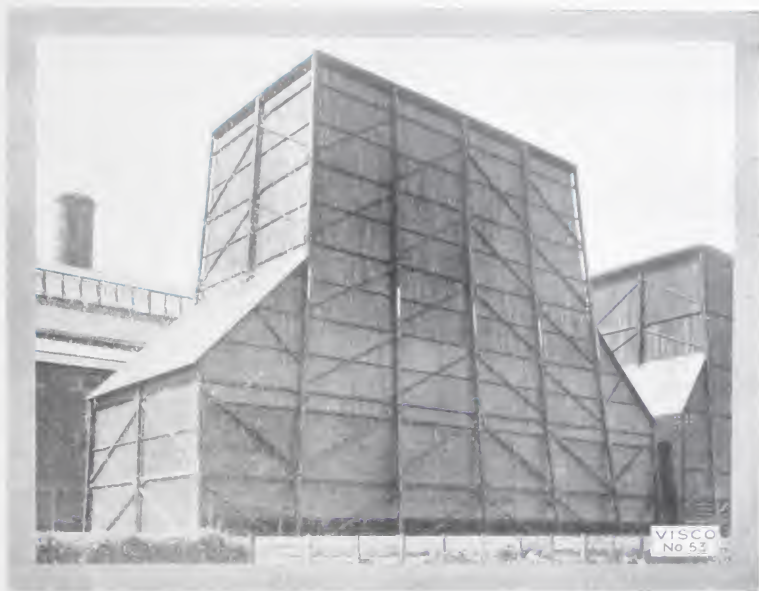
For smaller installations, particularly where space need not be economised, and also in cases where the lowest possible water temperatures will have to be obtained,

THE OPEN TYPE COOLER

is largely used; an example of which is represented by illustration No. 54. To all intents and purposes, these open type coolers consist of the interior of a chimney cooler without the chimney itself, relying largely on the natural air currents to produce the requisite mixture of air and water. Air is never still, and even a comparatively slight movement will pass the volume of air required to obtain the desired cooling effect. In most cases, the structure is surrounded by louvres to prevent undue splashing of spray upon the surrounding property at high winds.

SPRAY COOLERS

consisting of a system of cast iron pipes projecting the water to be cooled through gun metal nozzles upwards into the atmosphere in finely divided form, can be used with advantage where space is plentiful, and particularly where large ponds already exist, the cooling efficiency of which requires supplementing. Properly dimensioned, they give an efficient service, although more dependent on natural air currents and more wasteful, as more water is lost by evaporation, particularly from the large surface of the pond.



"VISCO" CHIMNEY COOLING TOWER AT CARDIFF CORPORATION
POWER STATION. CAPACITY 340,000 GALLONS PER HOUR.

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"VISCO" OPEN TYPE COOLER AT FAVERSHAM ELECTRICITY WORKS

We also manufacture "VISCO" AIR FILTERS
for Turbo-Alternators, Motors, Air Compressors,
Ventilating Plants. Complete Ventilating, Air-
Conditioning and Heating Plants.

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